

The Cary Arboretum



of The New York Botanical Garden

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Environmental Law Symposium

The Cary Arboretum and the Dutchess County Bar Association joined forces on Saturday, October 18th, to conduct a timely symposium on "Environmental Law." Experts in all aspects of land management addressed the more than 275 lawyers and interested laymen who attended the day-long meeting, which took place at Vassar College. The dominant theme throughout the discussions and panel talks was that the average citizen has ample means at hand to enable him to pass on to future generations a part of the increasingly scarce "Green World."

Mr. Herman Levine, President of the Bar Association, welcomed the group and spoke of his organization's role in the continuing education of lawyers, especially in the rapidly growing field of environmental law. Dr. Howard Irwin, President of the New York Botanical Garden and Director of the Cary Arboretum, emphasized, in his opening remarks, the lack of "social navigation" in our society's long-range planning. He discussed

the environmental responsibility of the Cary Arboretum in development of long-range plans for man's survival.

Dr. Thomas Elias, Assistant Director of the Arboretum, outlined the specific purpose of the meeting in a discussion of land as "a non-renewable resource which serves as the basis for our life-support system." Speaking of the need for recognizing the interdependence of all elements in an ecosystem, Dr. Elias emphasized that the pressures of land use in the Hudson Valley are typical of the problems which affect large cities and major metropolitan areas throughout the country. (See "Perspectives," page 4.)

The presentations began with a discussion on "Land Use and Open Space," by Mr. Arthur Savage, a partner in the New York City-based firm of Gasperini and Savage. Mr. Savage, who is particularly active in land-use planning for the Adirondack region, has been instrumental in preparing several broad-based conservation

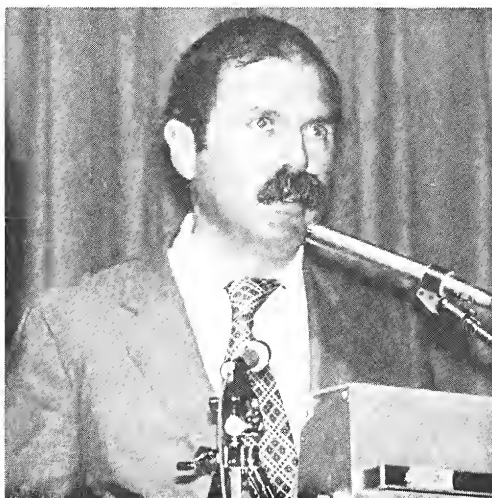
easements in New York State. Discussing easements in general, he emphasized that it is a legal technique developed since the 1950's, which is increasingly being utilized by land owners in an effort to preserve their property in its natural state for succeeding generations. In an unusually clear explanation of complex legal matters, Mr. Savage pointed out that granting a properly-drafted conservation easement to a non-profit foundation or land trust not only allows for a dependable joint stewardship of the land in perpetuity, but also offers many tax benefits that accrue to the landowner during his lifetime.

Mr. Russell Brenneman, a prominent Connecticut attorney long active in formulating energy-use policies, and the author of "Private Approaches to the Preservation of Open Land," discussed "Techniques of Land Preservation." Lauding the "amazing amount of interest and activity prevalent today in citizen action to preserve open space," Mr.

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Dr. Thomas Elias, Assistant Director of the Cary Arboretum



Mr. John M. Kennedy, Attorney for Dutchess County and Chairman of the Environmental Committee of the Dutchess County Bar Association



Mr. David Sive, distinguished participant in the Environmental Law Symposium

Brenneman described the legal techniques involved in aiding either the land trust or the donor of the land. In this connection, he particularly emphasized the growing expertise, professional knowledge, and success of such organizations as the Nature Conservancy, the volunteer, non-political, national conservation agency which has been so instrumental in assisting local attorneys and individuals to draft land-saving gifts.

The interesting and little-known concept of the legal standing of an inanimate object — such as a mountain or a lake — by those who seek to protect such property from development, was discussed by Mr. Nicholas Robinson, a New York attorney who not only is a prolific writer on the subject, but also actively serves on the environmental committees of both the New York Bar Association and the American Bar Association.

Mr. Robinson discussed this challenging and exciting new legal concept, and traced its history from its beginning in the late 1960's, when California's controversial Mineral King Mountain case was decided by the U. S. Supreme Court. Though environmentalists lost the case, Justice William O. Douglas' dissenting opinion has resulted in an ever-growing body of legal thought evolving around the concept of inanimate objects having legal standing in court to obtain conservation protection, regardless of whether the owners of such properties are private individuals or organizations.

Gifts of Trees

Four large umbrella pines (*Sciadopitys verticillata*) were recently transplanted from Millerton to the Arboretum property. The 75-year-old trees were a gift from Mr. Robert Quinlan of Millerton and were the largest plant material moved into the Arboretum to date.

The size of the trees (the largest has a seven-foot earth ball) far exceeded the available equipment owned by the Arboretum. Equipment was rented from Frost & Higgins, a Boston-based tree moving company, enabling the Arboretum crew to assist with the work. The four 30-foot trees were moved within four days.

The two largest specimens were planted in the parking loop, in front of the soon-to-be started Administration and Research Building on Sharon Turnpike. When the building is completed, the two pines will constitute the main view from the doorway. A third tree was planted in the field west of Gifford House where conifer demonstrations are planned. The fourth was planted in the formal garden behind Gifford, as the first stage in the relandscaping of that property.

Dr. Joseph Davis of Fishkill has offered the Arboretum a generous gift of approximately 200 specimens from his collection of rare and unusual plants, particularly trees with exfoliating bark. Exfoliating bark peels back forming interesting patterns and textures on the tree trunks.

Mr. John J. Gartland, Jr., a trustee of the McCann Foundation, which made a grant in support of the symposium, served as Master of Ceremonies during the luncheon program in Vassar's new cafeteria facility. Mr. Gartland expressed his pleasure at the large number of law students from such prestigious institutions as Columbia, Yale, Fordham, Albany, and other New York law schools who attended the conference. During the luncheon program, Mr. R. Watson Pomeroy of Wassaic, former New York Senator, received, in absentia, the second Cary Arboretum Distinguished Service Award. Dr. Irwin, who made the presentation, described Mr. Pomeroy as a "pioneer in the environmental movement" who was instrumental in formulating basic legislation to protect New York State's vast forest preserves.

The afternoon session was devoted to the broad and complex subject of "Zoning and Planning." Mr. David Callies, of Chicago, Illinois, co-author of "The Quiet Revolution in Land Use Control," and "The Taking Issue," described the far-reaching consequences of "The Taking Issue." He propounded the thesis that any new land-use regulations inevitably bring charges by both landowners and developers of property that the land is being taken without compensation, contrary to the Fifth Amendment of the U.S. Constitution. The recurring lengthy litigation resulting from this principle, he emphasized, could largely be mitigated by an effective campaign to see that courts are presented with sound, scientific evidence supporting the need for land-use control.

Mr. Callies then pointed out some of the innovative and effective legal controls already available in the new and ever-growing concern over constructive use of land. Statewide zoning, planning and development controls, plus resource protection of such irreplaceable natural features as shorelines and wetlands, are among the legal weapons that can be used, he said. Mr. Callies also stressed that more attention must be given to the drafting of land use regulations, in order to effect a compromise between the needs of the environment and the rights of the individual.

A summation of zoning-law development was presented by Mr. David Sive, a New York lawyer who is both Chairman of the Environmental Law Institute and of the Environmental Planning Lobby of New York State, and also a director and trustee of several conservation organizations. Mr. Sive discussed the new zoning techniques which have evolved as a direct result of the increasingly effective environmental movement. In order to put the entire subject into its proper perspective, he detailed the existing supportive zoning laws, and pointed out new legal techniques that now are available during zoning litigation.

A question-and-answer period, moderated by Mr. John M. Kennedy, Chairman of the Environmental Law Committee of the Dutchess County Bar Association, followed the day's panel talks, and the meeting was adjourned at 4:30 p.m., with a vote of thanks given to Dr. Elias, who was the symposium's prime organizer.

Some of the more unusual trees include two large lace bark pines (*Pinus bungeana*), several large paper bark maples (*Acer griseum*), two 35-foot river birches (*Betula nigra*), approximately 40 Stewartia plants, several rare beech varieties, and a very rare specimen of three-flower maple (*Acer triflorum*). There are only about six three flowered maples in existence in the United States.

The Cary Arboretum is most grateful to Mr. Quinlan and Dr. Davis for these large

and valuable specimens which would otherwise not be available in their present size. These plantings will add to the beauty and educational value of the Arboretum's collection.

One of the umbrella pines being moved from Millerton



Robert "Gus" Tillman — Coordinator of Wildlife Resources

If you were casting a movie, and wanted a rugged, strong, "outdoor-type" of personality to portray a dedicated, down-to-earth scientist, you'd probably pick someone like the Arboretum's Robert Tillman for the role. Dr. Tillman — "I'm called 'Gus' because there are just too many Roberts around here" — who wears a full, rich, dark beard and smokes a musty, musky corncob pipe, invariably looks as though he is ready to go out into the field or woods where, in fact, he spends most of his waking hours, especially now that the hunting season has arrived.

Gus is a native of Hammondsport in the heart of New York State's famous wine country. He received his Master's degree from SUNY, Albany, and his Doctorate in Environmental Education and Wildlife Management from Cornell University. Prior to joining the scientific staff at the Cary Arboretum in 1973, he served as Associate Professor and Chairman of the Natural Resources Program at Dutchess Community College in Poughkeepsie, New York.

Dr. Tillman, who majored in social sciences as an undergraduate, strongly recommends some training in that field for those who wish to enter the growing field of natural resource management. He believes, essentially, that "environmental management" boils down to "people management and people communications." He adds, "To neglect the human and political aspects when looking at the environmental picture, will doom any project at the very outset, because recommendations that the social system proves incapable of handling will not be carried out."

Annual controlled deer hunts on Arboretum land have been conducted since the Arboretum was established four years ago, and during the approaching hunting season, Dr. Tillman hopes to continue a deer population study started a year ago by Jay McAninch. This project involves both tagging and counting deer, and observing the animal's migration patterns throughout the Arboretum's 2,000 acres. In addition, information as to health, age, sex, and reproductive data of each deer taken during the three-week hunting period is carefully recorded and analyzed. There long have been reports of an overpopulation of deer in the Cannoo Hills, with many of the animals suffering from severe malnutrition or dying of starvation during severe winters. Gus attributes this overpopulation to the fact that the Arboretum acreage served as a "sanctuary" during the many years that Mr. and Mrs. Cary owned the land, and because owners of adjacent large estates also limited hunting. These factors, combined with the recent unusually mild winters, have greatly added to the size of the Cary herd.

Dr. Tillman believes that this study not only will provide accurate population numbers,

but also will reveal migratory patterns of the herds. With this knowledge the Arboretum's horticultural staff more easily will be able to devise a planting scheme that would offer adequate protection for a balanced deer herd and also will serve to protect the vulnerable newly-planted specimens from the deer depredation. As far as Gus knows, this comprehensive deer study will provide the only available detailed information on the animals in the 61.47 square miles of the Town of Washington, where most of the Arboretum land is located.

At present, Jay McAninch & Vic Layton also are conducting other interesting and useful wildlife research projects, including a rabbit-population study, in order to determine whether the rare, New England cottontail still is to be found in the Millbrook area. They also are busy mapping the locations of small animal dens and burrows throughout the property. This latter project will be directed towards encouraging such wildlife to concentrate around the future Visitors' Center on the Sharon Bypass. Planting proper vegetation that will provide both nourishment and the adequate protective cover is one method Dr. Tillman hopes to use to attract the smaller animals away from the specimen plant collection areas.

During 1973-74, Dr. Tillman served as advisor to the Consolidated Edison Company of New York, while a 28-mile power line was under construction in Orange and Rockland Counties. This project was a pioneer pilot experiment in cooperation between a utility company and an environmental research organization. The Arboretum was retained to advise on the environmental aspects of the construction program, i.e., siting of towers and access roads, and clearing and replanting the rights-of-way. The cooperative effort proved highly successful, and resulted in a power line that now is regarded as one of the most environmentally sound ever constructed in New York State, with the added dual benefits of lowered construction costs to the power company and lessened damage to the environment.

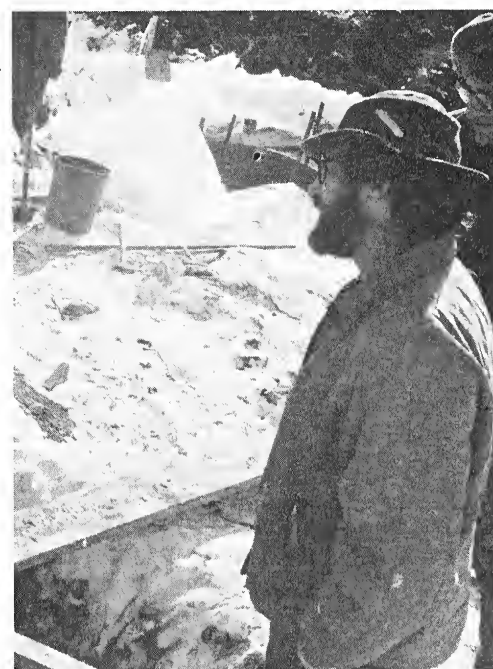
The project has been recorded on film, and this movie, "Power and the Land," which was commissioned by Con Edison, has been shown to numerous civic groups and is available on request from the Cary Arboretum. The story of this pioneering cooperative effort also was used as the model for a recent symposium conducted for the New York State Power Pool, a consortium of electric power producers, at which Dr. Tillman served as coordinator. In addition, in January, 1976, he will be Session Chairman for a national right-of-way symposium to be held at Mississippi State University. At this conference, Dr. Tillman will deliver a paper on the experiences gained and insights developed during the building of the Con Ed. line.

Last spring, Gus accompanied Dr. Robert Goodland, ecologist at the Cary Arboretum, to Nicaragua to help compile an environmental assessment report of that country's 10-year power plan. The study, which was commissioned by the Nicaraguan government, included recommendations on wildlife management, power assessment, and the type and size of proposed facilities and transmission routes. This fall Gus & Robert will go to Guatemala for a similar project.

Gus and his wife "Sam" live in the beautiful Clove Valley, just on the edge of Tymor Forest, the Town of Unionvale's forest preserve. Their two teen-age sons, Hank and Franz, share their father's interest in basketball and softball. Among Dr. Tillman's other hobbies are hunting, collecting coins and pipes, birdwatching, gardening, photographing, and cooking — "camping-type all-in-one-pot!" — he is quick to add. He also has a permanent houseguest in the form of a boa constrictor, which lives in a custom-built, large, specially lit glass cage!

Gus currently is working on a "fun book about wilderness ways." It will feature assorted anecdotal essays on everything from stone walls to screech owls. However, the book takes "second place" to the articles he plans to write on the more urgent topics of power lines and animal studies.

Dr. Robert "Gus" Tillman



Cary Perspectives

WHO REALLY OWNS THE LAND?

(Introductory Remarks at Symposium on Environmental Law, October 18, 1975)

Land is one of the basic components of our biosphere, that thin layer of our planet's surface with its surrounding envelope of earth and water in which all living organisms are found. This biosphere is a complex system and one which has only come about as a result of a very long evolution. We know very little about it; in fact, it may be unique in the entire universe. The biosphere is composed of numerous functional, ecological units known as ecosystems. An ecosystem is basically an interacting community of organisms together with their non-living components in the environment. The plants and animals in a pond, an oak hickory forest or a prairie would constitute an ecosystem. We as biological creatures are part of those complex ecosystems and dependent upon the interactions and inter-relationships of the various components for our survival. Therefore land and its natural resources should be regarded as a community to which we belong.

On the other hand, we can point out that when this country was founded, it provided for the right of individuals to own land and

its resources and that this land could not be taken for public use without just compensation. Most individuals believe that the Constitution gives every person the right to do whatever he wants with his land. Many others believe that land use should be subject to regulation, provided that it does not interfere with their fight to make a profit on it. Therefore, we should regard land and its natural resources as a commodity belonging to us.

We are seemingly locked in an internal struggle between our highly industrialized technological society and the growing demand for more safeguards to protect the natural environment and to insure against further degradation of the quality of life. On the one side are those who maintain that this country was built on the principle of continued growth and expansion, pointing out that it is the industrialization and the plethora of technological advances that have made this country great. Counter to this are proponents of the escape from the technological trap because it will sacrifice everything from health to the beauty of nature in the desire to achieve more speed, more power and more wealth. The time is ripe for us to consider land and its natural resources as both a commodity and a com-

munity, subject to wise and prudent use and based on the philosophy that it is non-renewable and serves as our basic life support system.

In recent years there has been a growing public awareness of an environmental crisis. We are in a period in which there is a decline in the quality of life. As a result, the sponsors, which have a professional interest in the way natural resources, including land, are used, organized a symposium in environmental law. The Hudson Valley, despite its intrinsic beauty, is not immune from the same pressures for changing land use that affect major urban centers. Governmental bodies, commercial developers, farmers, homeowners and conservationists each pursue their own, and often conflicting, ideas on use of the area's limited land and its resources. It is for this reason that the Cary Arboretum and the Dutchess County Bar Association invited lawyers, scientists, planners, conservation boards, developers, realtors, students and other interested laymen to confer on this vital topic.

Thomas S. Elias
Assistant Director

Publicity and Publications

Dr. Robert Goodland, chairman of the Arboretum's Department of Environmental Assessment, who was profiled in our last issue, continues his fast pace of travels and professional writings.

"The New York Times" of September 15 featured on its Op-Ed page an article by Dr. Goodland presenting the chief findings of his recently published book, written with Dr. Howard S. Irwin, "Amazon Jungle: Green

Hell to Red Desert?". The "Times" article, provocatively titled, "Is This Big Parking Lot Where Brazil Used to Have the Amazon Region?", touched off a spate of orders for the book (published by Elsevier Scientific Publishing Co.), and news dispatches about the article were picked up by the Brazilian press.

Robert S. Hebb, Cary Arboretum Horticulturist, has just published "Low Mainten-

ance Perennials." This handy, paper-bound guide lists over 1,000 species, varieties, and cultivars which are hardy in heat and cold, require no staking, are immune or tolerant to insects and disease, and grow at least four years without requiring dividing. A useful list of retail and wholesale sources for plant material is also provided. Quadrangle/The New York Times Book Co. is the publisher.

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